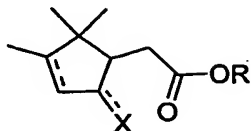


## CLAIMS

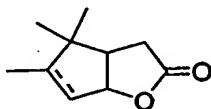
1. A compound selected from the group consisting of:

a) compounds of formula



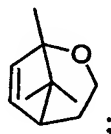
wherein R is H or a straight chain, branched, or cyclic alkyl or alkenyl group, or aralkyl group, having 1 to 10 carbon atoms, or R is a fragment of linear, branched, or cyclic alkyl or alkenyl or aralkyl polyhydric alcohol having from 2 to 6 oxygen atoms, and wherein the dashed bond in the ring is double or single, and wherein X is OH connected to the carbon atom of the ring by a single bond, or X is an oxygen atom connected to the ring by a double bond, with the proviso that if R=H, at least one dashed bond is single;

b) compounds of formula:

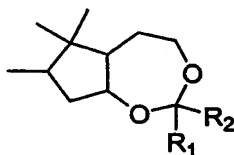


wherein the dashed bond is double or single;

c) compound of formula:



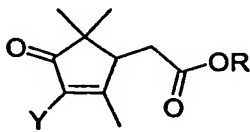
d) compounds of formula:



wherein R<sub>1</sub> and R<sub>2</sub> are each independently hydrogen or a straight chain, branched, or cyclic alkyl or alkenyl group, or aralkyl group, having 1 to 10 carbon atoms, or

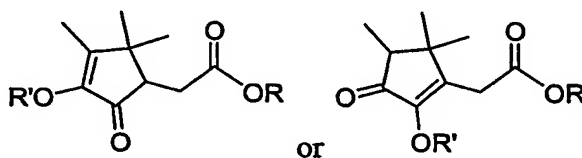
wherein  $R_1$  and  $R_2$  form a cycloalkane or a cycloalkene having a ring comprising from 5 to 10 carbon atoms;

e) compounds of formula:



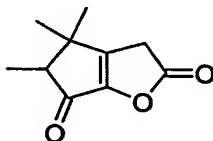
wherein Y is a hydrogen, hydroxyl, or -OR group, and R is defined as in (a);

f) compounds of formula:

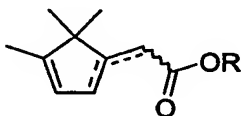


wherein R is defined in (a), and  $R'$  is selected independently from H, straight chain, branched, or cyclic alkyl or alkenyl group, or aralkyl group, having 1 to 10 carbon atoms;

g) compound of formula:

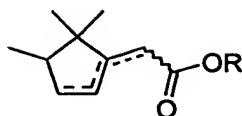


h) compounds of formula:



wherein R is defined in (a), and wherein any one of the dashed bonds is double and the other one is single, and wherein the wiggled bond has *E* or *Z* configuration;

i) compounds of formula:



wherein R is defined in (a), and wherein any one of the dashed bonds is double and the other two are single.

- 5           2.       A composition comprising a base material and an olfactorily effective amount of a compound according to claim 1.
3.       A method of imparting a fragrance or flavor to a base material comprising combining the base material with an olfactorily effective amount of a compound according to claim 1.
- 10          4.       A method of making a modified terpenoid compound, said method comprising:
  - a) providing at least one cyclic terpenoid compound, said terpenoid compound having from about 9 to about 16 carbon atoms, and at least one ring comprising from 3 to 9 carbon atoms optionally including one oxygen atom, and
  - 15           b) subjecting the cyclic terpenoid compound to biological microbial oxidation thereby forming an oxidized terpenoid compound having at least one carboxyl group, carboxylate anion group, carboxylic ester group, or cyclic ester group, and
  - c) conducting at least one chemical reaction with the oxidized terpenoid compound prepared according to the step b), said chemical reaction being selected from esterification, trans-esterification, reduction, oxidation, elimination, isomerization, carbon-carbon bond forming reactions, carbon-carbon bond cleaving reactions, and combinations thereof,
  - 20           with the proviso that
    - 25           i) at least one of the steps b) or c) cleave at least one bond in the ring of cyclic terpenoid compound provided in step a), and
    - ii) if step b) comprises intramolecular esterification to form a lactone, then step c) comprises at least two chemical reactions.

thereby forming a modified terpenoid compound having flavor- or fragrance-imparting capabilities.

5. A method of claim 4, wherein the cyclic terpenoid compound is selected from the group consisting of camphor, fenchone, fenchyl alcohol, borneol, isoborneol, glycosides thereof, and esters thereof with alkanoic or alkenoic, linear, branched, or cyclic carboxylic acids, said acids having 1 to 10 carbon atoms and 1 to 3 carboxyl groups.

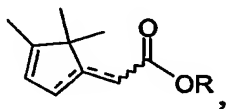
6. A method of claim 4, wherein the biological microbial oxidation is effected using a microorganism possessing at least one terpene hydroxylase activity or a Baeyer-Villiger type monooxygenase activity with cyclic ketones.

7. A method as claimed in claim 4, comprising:

oxidizing the cyclic terpenoid compound to form an oxidized terpenoid compound selected from the group consisting of 1,2-campholide, 5-hydroxy-1,2-campholide, 3-hydroxy-2,2,3-dimethylcyclopentanylacetic acid, and combinations thereof;

esterifying or transesterifying the oxidized compound with an alcohol to form an ester; and

dehydrating the ester to form an  $\alpha$ -campholenic (2,2,3-trimethylcyclopent-3-enylacetic) acid ester having the formula:



wherein R is a straight chain, branched, or cyclic lower alkyl or alkenyl group, or aralkyl group, having from 1 to 10 carbon atoms, and wherein any one dashed bond is double and the other is single, and wherein the wiggled bond is in *E* or *Z* configuration.

8. A method of claim 4 wherein the microorganism is selected from the group consisting of bacteria, yeast, and fungi.

9. A method of claim 4, wherein the compound having flavor or fragrance capabilities is selected from the group consisting of esters of a trimethylcyclopentenylacetic acid and esters of a trimethylcyclopentadienylacetic acid.

10. A method of claim 4, wherein the oxidized terpene compound is selected from the group consisting of 2-keto-4,5,5-trimethyl-cyclopent-3-enylacetic acid, 3-keto-4,5,5-trimethylcyclopentylacetic acid, and salts thereof.